

REMARKS

Applicant thanks the Examiner for the very thorough consideration given the present application. Claims 1-20 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw his rejections in view of the amendments and remarks as set forth below.

ELECTIONS/RESTRICTIONS

Applicant requests examination of Group I, claims 1-17. Applicant requests that the non-elected Group II, claims 18-20, be withdrawn.

REJECTION UNDER 35 U.S.C. § 102

Claims 1-17 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Yu et al. (A Hierarchical Multiresolution Video Shot Transition Detection Scheme). This rejection is respectfully traversed.

Applicant submits that Yu et al. does not constitute as prior art under 102(e). The Examiner has cited the following quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejection:

(e) the invention was described in (1) **an application for patent**, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) **a patent granted** on an application for patent by another filed in the United States before the invention by the application for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Articles 21(2) of such treaty in the English language.

Applicant submits that for prior art to constitute under 102(e), the prior art reference must be an application for patent or a patent granted on an application. Yu et al. is an article, thus does not constitute as prior art under 102(e).

Therefore, reconsideration and withdrawal of this rejection are respectfully requested.

Claims 1-4 and 6-9 are rejected under 35 U.S.C. § 102(b) as being anticipated by Niikura et al. (U.S. Pat. No. 5,911,008). This rejection is respectfully traversed.

At the outset, independent claim 1 recites “a video source that provides a video sequence that includes a plurality of frames each including multiple pixels; a frequency decomposer connected to said video source that generates a low frequency signature for each of said plurality of frames; and a cut detector connected to said video source and said frequency decomposer that identifies a cut transition between two adjacent frames using said low frequency signature.”

In contrast, Niikura et al. appears to generally disclose a shot boundary detection apparatus having a picture judgment unit for receiving an input compressed image data sequence and judging a P picture sequence and an I picture sequence contained therein, a data sequence memory for storing the input compressed image data sequence, a picture change calculation unit for receiving a P picture sequence from the data sequence memory and calculating a P picture change, and a I picture change calculation unit for receiving an I picture sequence from the data sequence memory and calculating an I picture change, and a shot boundary detection unit for receiving the P picture change and I picture change from the I and P picture change calculation unit, and detecting shot boundaries (Col. 14, lines 45-59 and Figure 8). Niikura et al fails to

teach or suggest a frequency decomposer that generates a low frequency signature for each of the plurality of frames and a cut detector for identifying a cut transition between two adjacent frames using the low frequency signature. The two picture changes I and P are evaluated by shot boundary detection unit to obtain the shot boundaries (Col. 15, lines 66-67 to Col 16, line 1 and Figure 8), whereas the present invention utilizes only the low frequency signature that has been generated for each of the plurality of frames to identify a cut transition as claimed and shown in Figure 5. In addition, Niikura et al. discloses that the image data sequence comprises $t+1$ sets of picture sequence groups, where each picture sequence group has one frame of I picture followed by fourteen frames of P pictures (Col. 14, lines 62-67). Niikura et al. does not make any reference to generating a low frequency signature for each of the plurality of frames and using that low frequency signature to identify a cut transition between two adjacent frames.

Therefore, independent claim 1, along with claims depending therefrom, are now patentable and in condition for allowance.

REJECTION UNDER 35 U.S.C. § 103

Claims 10 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Niikura et al. (U.S. Pat. No. 5,911,008) in view of Oguro (U.S. Pat. No. 5,477,276). This rejection is respectfully traversed.

Applicant submits that Claims 10 and 13 depend from Claim 1, which is believed to be patentable and in condition for allowance. Therefore, reconsideration and withdrawal of this rejection is requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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